L2: Entry 7 of 9 File: USPT May 8, 1973

US-PAT-NO: 3732147
DOCUMENT-IDENTIFIER: US 3732147 A

TITLE: COLORIMETRIC DETERMINATION OF DEHYDROGENASES

DATE-ISSUED: May 8, 1973

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fosker; Alan Phillip	High Wycombe			EN
Mill; Patrick James	Beaconsfield			EN

US-CL-CURRENT: 435/26; 422/56, 435/805

CLAIMS:

What is claimed is:

1. A composition for the determination of a dehydrogenase enzyme in a test fluid which comprises a coenzyme selected from the group consisting of nicotinamide adenine dinucleotide and nicotinamide adenine dinucleotide phosphate, a corresponding substrate for said enzyme, a terminal acceptor dye and Meldola's Blue as an intermediary hydrogen carrier.

2. A composition according to claim 1 wherein the terminal acceptor dye is selected from the group consisting of 2-(p-iodophenyl)-3(p-nitrophenyl)-5-phenyl tetrazolium chloride 2-(p-iodophenyl)-3(p-nitrophenyl)-5-phenyl tetrazolium bromide and 2-(p-iodophenyl)-3(p-nitrophenyl)-5-phenyl tetrazolium iodide.

3. A composition according to claim 1 wherein the enzyme being determined is lactic dehydrogenase and the substrate is lactic acid.

4. A composition according to claim 1 wherein the enzyme being determined is glucose-6-phosphate dehydrogenase and the substrate is glucose-6-phosphate.

5. A composition according to claim 1 wherein the enzyme being determined is 6-phosphogluconate dehydrogenase and the substrate is 6-phosphogluconate.

6. A test device for the determination of a dehydrogenase enzyme comprising a carrier with which is incorporated the composition of claim 1.

7. A test device according to claim 6 wherein the carrier is a bibulous paper.

8. A method for the determination of a dehydrogenase enzyme, which comprises contacting the fluid containing the enzyme with a predetermined proportion of a composition comprising a coenzyme selected from the group consisting of

dinucleotide and nicotinamide adenine dinucleotide phosphate, a corresponding substrate for said enzyme, a terminal acceptor dye and Meldola's Blue as an intermediary hydrogen carrier.

Previous Doc Next Doc Go to Doc#